

10/510019

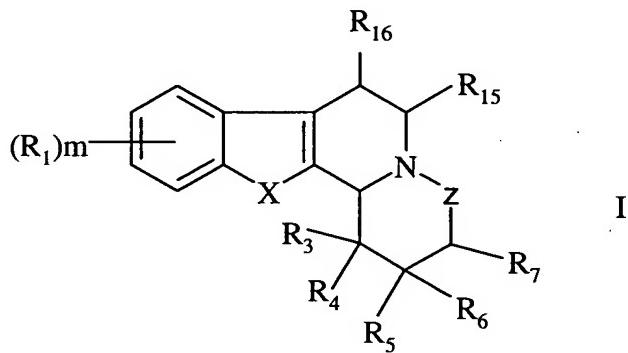
DT04 Rec'd PCT/PTO 01 OCT 2004

Amendments to the claims:

The following listing of claims replaces all prior versions of claims in this application.

1. (Currently Amended) A method for the treatment of a disease or condition

where an antagonist of the alpha-2 adrenoceptor is indicated to be useful, which comprises
administering to a patient in need of the treatment an effective amount of Use of a
compound of formula I,



wherein,

X is CR₂R₂', O, S or NR₂;

Z is -CHR₈-(CH₂)_n- or a single bond;

R₁ is hydroxy, (C₁-C₆)alkyl, (C₁-C₆)alkoxy, halogen, halo(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-, CN, NO₂, NH₂, mono- or di(C₁-C₆)alkylamino or carboxyl;

R₂ and R₂' are independently H, hydroxy or (C₁-C₆)alkyl or R₂ and R₂' form, together with the carbon ring atoms to which they are attached, a carbonyl group;

R₃ is H, hydroxy, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy, (C₁-C₆)alkoxy(C₁-C₆)alkyl, hydroxy(C₁-C₆)alkoxy(C₁-C₆)alkyl, (C₃-C₇)cycloalkyl, (C₃-C₇)cycloalkyl(C₁-C₆)alkyl, aryl, aryl(C₁-C₆)alkyl, aryloxy, aryl(C₁-C₆)alkoxy, aryloxy(C₁-C₆)alkyl, aryl(C₁-C₆)alkoxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, NH₂, amino(C₁-C₆)alkyl, mono- or di(C₁-C₆)alkylamino, mono- or di(C₁-C₆)alkylamino(C₁-C₆)alkyl, (C₁-C₆)alkyl-CO-, (C₁-C₆)alkyl-CO-O-, (C₁-C₆)alkyl-CO-O-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkoxy(C₁-C₆)alkyl, carbamoyl, mono- or di(C₁-C₆)alkylcarbamoyl, carboxyl or (C₁-C₆)alkyl-S-(C₁-C₆)alkyl, wherein the said (C₃-C₇)cycloalkyl or aryl is unsubstituted or substituted with 1 or 2 substituents each independently being hydroxy, (C₁-C₆)alkyl, halogen, (C₁-C₆)alkoxy, NH₂, CN or NO₂, or one of R₃ or R₄ and R₆ together form a bond between the ring atoms to which they are attached;

R₄ is H, hydroxy, (C₁-C₆)alkyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy or (C₁-C₆)alkoxy(C₁-C₆)alkyl;

R₅ is H, hydroxy, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₁-C₆)alkoxy, (C₁-C₆)alkoxy(C₁-C₆)alkyl, (C₃-C₇)cycloalkyl, (C₃-C₇)cycloalkyl(C₁-C₆)alkyl, aryl, aryl(C₁-C₆)alkyl, aryloxy, aryl(C₁-C₆)alkoxy, aryloxy(C₁-C₆)alkyl, aryl(C₁-C₆)alkoxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, (C₁-C₆)alkyl-CO-O-, (C₁-C₆)alkyl-CO-O-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkoxy(C₁-C₆)alkyl, carbamoyl, mono- or di(C₁-C₆)alkylcarbamoyl, carboxyl or (C₁-C₆)alkyl-S-(C₁-C₆)alkyl, wherein the said (C₃-C₇)cycloalkyl or aryl is unsubstituted or substituted with 1 or 2 substituents each independently being hydroxy, (C₁-C₆)alkyl, halogen, (C₁-C₆)alkoxy, NH₂, CN or NO₂, or R₄ and R₅ form, together with the carbon ring atoms to which they are attached, a condensed five to seven membered saturated carbocyclic ring substituted with 1 to 3 substituent(s) R₉ each independently being hydroxy, (C₁-C₆)alkyl, halogen, NH₂, NO₂, (C₃-C₇)cycloalkyl, hydroxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, mono- or di(C₁-

C_6)alkylamino, mono- or di(C_1 - C_6)alkylamino(C_1 - C_6)alkyl, (C_1 - C_6)alkoxy, (C_1 - C_6)alkoxy(C_1 - C_6)alkyl, carboxyl, (C_1 - C_6)alkyl-CO-, (C_1 - C_6)alkyl-CO-O-, (C_1 - C_6)alkoxy-CO-, (C_1 - C_6)alkoxy-CO-(C_1 - C_6)alkyl, carbamoyl mono- or di(C_1 - C_6)alkylcarbamoyl or oxo;

R_6 is H, hydroxy, (C_1 - C_6)alkyl, (C_1 - C_6)alkoxy or (C_1 - C_6)alkoxy(C_1 - C_6)alkyl or R_6 forms a bond between the ring atom to which it is attached and the ring atom to which R_7 is attached;

R_7 is H, hydroxy, (C_1 - C_6)alkyl, hydroxy(C_1 - C_6)alkyl, (C_1 - C_6)alkoxy or (C_1 - C_6)alkoxy(C_1 - C_6)alkyl;

R_8 is H, hydroxy, (C_1 - C_6)alkyl, hydroxy(C_1 - C_6)alkyl, (C_1 - C_6)alkoxy or (C_1 - C_6)alkoxy(C_1 - C_6)alkyl or, only when n is 0, R_7 and R_8 form, together with the carbon ring atoms to which they are attached, a condensed five to seven membered saturated carbocyclic ring unsubstituted or substituted with 1 to 3 substituent(s) R_{10} each independently being hydroxy, (C_1 - C_6)alkyl, halogen, NH₂, NO₂, (C_3 - C_7)cycloalkyl, hydroxy(C_1 - C_6)alkyl, halo(C_1 - C_6)alkyl, amino(C_1 - C_6)alkyl, mono- or di(C_1 - C_6)alkylamino, mono- or di(C_1 - C_6)alkylamino(C_1 - C_6)alkyl, (C_1 - C_6)alkoxy, (C_1 - C_6)alkoxy(C_1 - C_6)alkyl, carboxyl, (C_1 - C_6)alkyl-CO-, (C_1 - C_6)alkyl-CO-O-, (C_1 - C_6)alkoxy-CO-, (C_1 - C_6)alkoxy-CO-(C_1 - C_6)alkyl, carbamoyl, mono- or di(C_1 - C_6)alkylcarbamoyl or oxo;

R_{15} is H, (C_1 - C_6)alkyl, (C_2 - C_6)alkenyl, hydroxy(C_1 - C_6)alkyl, (C_1 - C_6)alkoxy(C_1 - C_6)alkyl, hydroxy(C_1 - C_6)alkoxy(C_1 - C_6)alkyl, halo(C_1 - C_6)alkyl, amino(C_1 - C_6)alkyl, mono- or di(C_1 - C_6)alkylamino(C_1 - C_6)alkyl, (C_1 - C_6)alkyl-CO-, (C_1 - C_6)alkyl-CO-O-(C_1 - C_6)alkyl, (C_1 - C_6)alkoxy-CO-, (C_1 - C_6)alkoxy-CO-(C_1 - C_6)alkyl, (C_1 - C_6)alkoxy-CO-(C_1 - C_6)alkoxy(C_1 - C_6)alkyl, carbamoyl, mono- or di(C_1 - C_6)alkylcarbamoyl or carboxyl;

R₁₆ is H or (C₁-C₆)alkyl;

R₇ and R₈ are attached to the carbon ring atoms, which are adjacent;

m is 0 to 2; and

n is 0 or 1,

or a pharmaceutically acceptable salt or ester thereof, with the proviso, that the compound is not 1,2,3,4,5,10b-hexahydro-10-thia-3a-aza-cyclopenta[a]fluorine,

~~for the manufacture of a medicament for the treatment of diseases or conditions where antagonists of alpha-2 adrenoceptors are indicated to be useful.~~

2. (Currently Amended) A method ~~The use of a compound~~ according to claim 1, wherein X is NR₂.

3. (Currently Amended) A method ~~The use of a compound~~ according to claim 1 any one of claims 1 or 2, wherein m is 0, n is 0, R₂ is H, R₃ is H, hydroxy, (C₁-C₆)alkyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy(C₁-C₆)alkyl, (C₃-C₇)cycloalkyl, halo(C₁-C₆)alkyl, (C₁-C₆)alkyl-CO-, (C₁-C₆)alkyl-CO-O-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO- or (C₁-C₆)alkoxy-CO-(C₁-C₆)alkyl, R₄ is H, hydroxy, (C₁-C₆)alkyl or hydroxy(C₁-C₆)alkyl, R₅ is H, hydroxy, (C₁-C₆)alkyl or (C₁-C₆)alkoxy, R₆ is H or (C₁-C₆)alkyl and R₇ is H, (C₁-C₆)alkyl or hydroxy(C₁-C₆)alkyl.

4. (Currently Amended) A method ~~The use of a compound~~ according to claim 1 any one of claims 1 to 3, wherein R₃ is H or (C₁-C₆)alkyl and R₄ is hydroxy or hydroxy(C₁-C₆)alkyl.

5. (Currently Amended) A method ~~The use of a compound according to claim 1~~
~~any one of claims 1 or 2, wherein R₄ and R₅ form, together with the carbon ring atoms to~~
~~which they are attached, a condensed six membered saturated carbocyclic ring.~~

6. (Currently Amended) A method ~~The use of a compound according to any~~
~~claim 1 one of claims 1 or 2, wherein R₄ and R₆ together form a bond between the ring~~
~~atoms to which they are attached or R₆ forms a bond between the ring atom to which it is~~
~~attached and the ring atom to which R₇ is attached.~~

7. (Currently Amended) A method ~~The use of a compound according to claim 1~~
~~any one of claims 1 to 5, wherein the compound is 1α-ethyl-1,2,3,4,6,7,12,12bβ-octahydro-~~
~~indolo[2,3-a]quinolizin-1-ol, (1β-ethyl-1,2,3,4,6,7,12,12bα-octahydro-indolo[2,3-a]quinolizin-~~
~~1-yl)-methanol, 1α-Methyl-1,2,3,4,6,7,12,12bβ-octahydroindolo[2,3-a]quinolizin-1-ol, (1α-~~
~~Methyl-1,2,3,4,6,7,12,12bβ-octahydroindolo[2,3-a]quinolizin-1-yl)-methanol or 3,4,4aβ,~~
~~5,6,7,8,13,13bβ,13cα-decahydro-2H-6a,13-diaza-indeno[1,2-c]phenanthren-1-one.~~

8. (Currently Amended) A method ~~The use of a compound according to claim 1,~~
wherein X is CR₂R₂'.

9. (Currently Amended) A method ~~The use of a compound according to claim 1,~~
wherein X is O

10. (Currently Amended) A method ~~The use of a compound according to claim 1,~~
wherein X is S.

11. A method ~~The use of a compound according to claim 1, which comprises any~~
~~one of claims 1 to 10, for the manufacture of a medicament for the treatment of a disorder of~~

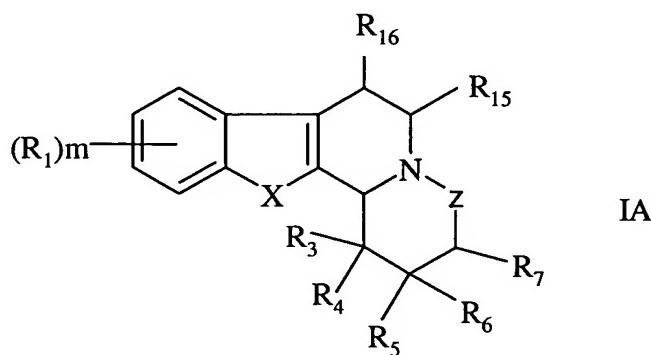
the central nervous system, diabetes, orthostatic hypotension, lipolytic disorder disorders, Raynaud's disease or male or and female sexual dysfunctions.

12. (Currently Amended) A method according to claim 11, wherein the disorder of the central nervous system is depression, anxiety disorder disorders, post-traumatic stress disorder, schizophrenia, Parkinson's disease, or another movement disorder.

13. (Currently Amended) A method ~~The use of a compound according to claim 1, wherein the compound is any one of claims 1 to 10 for the manufacture of a medicament for use as a selective alpha-2C antagonist.~~

14. (Currently Amended) A method ~~The use according to claim 13, which comprises for the manufacture of a medicament for the treatment of a mental disorder disorders propagated by stress, Parkinson's disease, depression, negative symptoms of schizophrenia, attention deficit hyperactivity disorder, post-traumatic stress-disorder, or anxiety disorder disorders.~~

15. (Original) A compound of formula IA



wherein,

X is CR₂R₂', O or S;

Z is -CHR₈-(CH₂)n- or a single bond;

R₁ is hydroxy, (C₁-C₆)alkyl, (C₁-C₆)alkoxy, halogen, halo(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-, CN, NO₂, NH₂, mono- or di(C₁-C₆)alkylamino or carboxyl;

R₂ and R₂' are independently H, hydroxy or (C₁-C₆)alkyl or R₂ and R₂' form, together with the carbon ring atoms to which they are attached, a carbonyl group;

R₃ is H, hydroxy, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy, (C₁-C₆)alkoxy(C₁-C₆)alkyl, hydroxy(C₁-C₆)alkoxy(C₁-C₆)alkyl, (C₃-C₇)cycloalkyl, (C₃-C₇)cycloalkyl(C₁-C₆)alkyl, aryl, aryl(C₁-C₆)alkyl, aryloxy, aryl(C₁-C₆)alkoxy, aryloxy(C₁-C₆)alkyl, aryl(C₁-C₆)alkoxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, NH₂, amino(C₁-C₆)alkyl, mono- or di(C₁-C₆)alkylamino, mono- or di(C₁-C₆)alkylamino(C₁-C₆)alkyl, (C₁-C₆)alkyl-CO-, (C₁-C₆)alkyl-CO-O-, (C₁-C₆)alkyl-CO-O-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkoxy(C₁-C₆)alkyl, carbamoyl, mono- or di(C₁-C₆)alkylcarbamoyl, carboxyl or (C₁-C₆)alkyl-S-(C₁-C₆)alkyl, wherein the said (C₃-C₇)cycloalkyl or aryl is unsubstituted or substituted with 1 or 2 substituents each independently being hydroxy, (C₁-C₆)alkyl, halogen, (C₁-C₆)alkoxy, NH₂, CN or NO₂, or one of R₃ or R₄ and R₆ together form a bond between the ring atoms to which they are attached;

R₄ is H, hydroxy, (C₁-C₆)alkyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy or (C₁-C₆)alkoxy(C₁-C₆)alkyl;

R₅ is H, hydroxy, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₁-C₆)alkoxy, (C₁-C₆)alkoxy(C₁-C₆)alkyl, (C₃-C₇)cycloalkyl, (C₃-C₇)cycloalkyl(C₁-C₆)alkyl, aryl, aryl(C₁-C₆)alkyl, aryloxy, aryl(C₁-C₆)alkoxy, aryloxy(C₁-C₆)alkyl, aryl(C₁-C₆)alkoxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, (C₁-C₆)alkyl-CO-, (C₁-C₆)alkyl-CO-O-, (C₁-C₆)alkyl-CO-O-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkoxy(C₁-C₆)alkyl, carbamoyl, mono- or di(C₁-C₆)alkylcarbamoyl, carboxyl or (C₁-C₆)alkyl-S-(C₁-C₆)alkyl, wherein the said (C₃-C₇)cycloalkyl or aryl is unsubstituted or substituted with 1 or 2 substituents each independently being hydroxy, (C₁-C₆)alkyl, halogen, (C₁-C₆)alkoxy, NH₂, CN or NO₂, or one of R₃ or R₄ and R₆ together form a bond between the ring atoms to which they are attached;

(C₆)alkyl-CO-O-, (C₁-C₆)alkyl-CO-O-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkoxy(C₁-C₆)alkyl, carbamoyl, mono- or di(C₁-C₆)alkylcarbamoyl, carboxyl or (C₁-C₆)alkyl-S-(C₁-C₆)alkyl, wherein the said (C₃-C₇)cycloalkyl or aryl is unsubstituted or substituted with 1 or 2 substituents each independently being hydroxy, (C₁-C₆)alkyl, halogen, (C₁-C₆)alkoxy, NH₂, CN or NO₂, or R₄ and R₅ form, together with the carbon ring atoms to which they are attached, a condensed five to seven membered saturated carbocyclic ring substituted with 1 to 3 substituent(s) R₉ each independently being hydroxy, (C₁-C₆)alkyl, halogen, NH₂, NO₂, (C₃-C₇)cycloalkyl, hydroxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, mono- or di(C₁-C₆)alkylamino, mono- or di(C₁-C₆)alkylamino(C₁-C₆)alkyl, (C₁-C₆)alkoxy, (C₁-C₆)alkoxy(C₁-C₆)alkyl, carboxyl, (C₁-C₆)alkyl-CO-, (C₁-C₆)alkyl-CO-O-, (C₁-C₆)alkoxy-CO-, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkyl, carbamoyl mono- or di(C₁-C₆)alkylcarbamoyl or oxo;

R₆ is H, hydroxy, (C₁-C₆)alkyl, (C₁-C₆)alkoxy or (C₁-C₆)alkoxy(C₁-C₆)alkyl or R₆ forms a bond between the ring atom to which it is attached and the ring atom to which R₇ is attached;

R₇ is H, hydroxy, (C₁-C₆)alkyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy or (C₁-C₆)alkoxy(C₁-C₆)alkyl;

R₈ is H, hydroxy, (C₁-C₆)alkyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy or (C₁-C₆)alkoxy(C₁-C₆)alkyl or, only when n is 0, R₇ and R₈ form, together with the carbon ring atoms to which they are attached, a condensed five to seven membered saturated carbocyclic ring unsubstituted or substituted with 1 to 3 substituent(s) R₁₀ each independently being hydroxy, (C₁-C₆)alkyl, halogen, NH₂, NO₂, (C₃-C₇)cycloalkyl, hydroxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, mono- or di(C₁-C₆)alkylamino, mono- or di(C₁-C₆)alkylamino(C₁-C₆)alkyl, (C₁-C₆)alkoxy, (C₁-C₆)alkoxy(C₁-C₆)alkyl,

carboxyl, (C₁-C₆)alkyl-CO-, (C₁-C₆)alkyl-CO-O-, (C₁-C₆)alkoxy-CO-, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkyl, carbamoyl, mono- or di(C₁-C₆)alkylcarbamoyl or oxo;

R₁₅ is H, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy(C₁-C₆)alkyl, hydroxy(C₁-C₆)alkoxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, mono- or di(C₁-C₆)alkylamino(C₁-C₆)alkyl, (C₁-C₆)alkyl-CO-, (C₁-C₆)alkyl-CO-O-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkyl, (C₁-C₆)alkoxy(C₁-C₆)alkyl, carbamoyl, mono- or di(C₁-C₆)alkylcarbamoyl or carboxyl;

R₁₆ is H or (C₁-C₆)alkyl;

R₇ and R₈ are attached to the carbon ring atoms, which are adjacent;

m is 0 to 2; and

n is 0 or 1,

or a pharmaceutically acceptable salt or ester thereof, with the provisos, that

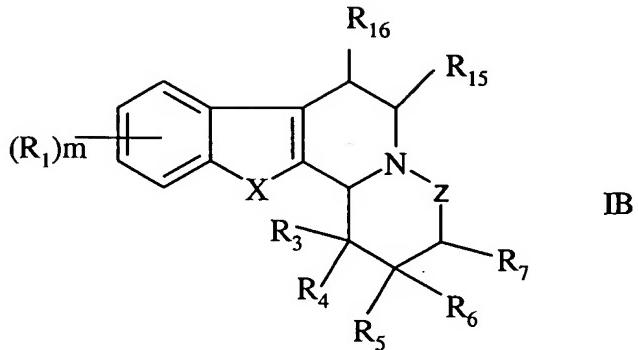
- a) when X is O, m is 0 and n is 0, then R₃-R₈ are not all simultaneously hydrogen;
- b) the compound is not 1,2,3,4,5,10b-hexahydro-10-thia-3a-aza-cyclopenta[a]fluorene; 1,3,4,5,6,11b-hexahydro-2H-11-thia-4a-aza-benzo[a]fluorene; 1-(1,3,4,5,6,11b-hexahydro-2H-11-thia-4a-aza-benzo[a]fluoren-1-yl)-ethanone or 1,3,4,5,6,11b-hexahydro-2H-11-thia-4a-aza-benzo[a]fluorene-1-carboxylic acid methyl ester.

16. (Original) A compound according to claim 15, wherein X is CR₂R₂'.

17. (Original) A compound according to claim 15, wherein X is O.
18. (Original) A compound according to claim 15, wherein X is S.
19. (Currently Amended) A compound according to claim 15 any one of claims-15 to 18, wherein R₃ is hydroxy, (C₁-C₆)alkyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO- or (C₁-C₆)alkyl-CO-O-(C₁-C₆)alkyl and R₄ is H, (C₁-C₆)alkyl or hydroxy(C₁-C₆)alkyl.
20. (Currently Amended) A compound according to claim 15 any one of claims-15 to 19, wherein R₃ is hydroxy, hydroxy(C₁-C₆)alkyl or (C₁-C₆)alkoxy(C₁-C₆)alkyl and R₄ is (C₁-C₆)alkyl.
21. (Currently Amended) A compound according to claim 15 any one of claims-15 to 18, wherein R₄ and R₅ form, together with the carbon ring atoms to which they are attached, a condensed six membered saturated carbocyclic ring.
22. (Currently Amended) A compound according to claim 15 any one of claims-15 to 21, wherein the compound is 1 α -Methyl-1,3,4,5,6,11b-hexahydro-2H-11-oxa-4a-aza-benzo[a]fluoren-1-ol, (1 α -Methyl-1,3,4,5,6,11b β -hexahydro-2H-11-oxa-4a-aza-benzo[a]fluoren-1-yl)-methanol, (-)-(1 α -Methyl-1,3,4,5,6,11b β -hexahydro-2H-11-oxa-4a-aza-benzo[a]fluoren-1-yl)-methanol, (+)-(1 α -Methyl-1,3,4,5,6,11b β -hexahydro-2H-11-oxa-4a-aza-benzo[a]fluoren-1-yl)-methanol, 1 α -Isopropyl-1,3,4,5,6,11b-Hexahydro-2H-11-oxa-4a-aza-benzo[a]fluoren-1-ol, 1 α -Ethyl-1,3,4,5,6,11b β -hexahydro-2H-11-oxa-4a-aza-benzo[a]fluoren-1-ol, (1 α -Ethyl-1,3,4,5,6,11b β -hexahydro-2H-11-oxa-4a-aza-benzo[a]fluoren-1-yl)-methanol, 1-Methyl-1 α ,3,4,6,11b β -hexahydro-2H-11-oxa-4a-aza-benzo[a]fluorene, (1-Hydroxymethyl-1,3,4,5,6,11b-hexahydro-2H-11-oxa-4a-aza-

benzo[a]fluoren-1-yl]-methanol, 1-Methoxymethyl-1 α -methyl-1,3,4,5,6,11b β -hexahydro-2H-11-oxa-4a-aza-benzo[a]fluorene, (-)-1-Methoxymethyl-1 α -methyl-1,3,4,5,6,11b β -hexahydro-2H-11-oxa-4a-aza-benzo[a]fluorene, (+)-1-Methoxymethyl-1 α -methyl-1,3,4,5,6,11b β -hexahydro-2H-11-oxa-4a-aza-benzo[a]fluorene, 1 α -Methyl-1,3,4,5,6,11b α -hexahydro-2H-11-oxa-4a-aza-benzo[a]fluorene-1-carboxylic acid ethyl ester, 1-Ethoxymethyl-1 α -methyl-1,3,4,5,6,11b β -hexahydro-2H-11-oxa-4a-aza-benzo[a]fluorene, (1 α -Methyl-1,3,4,5,6,11b α -hexahydro-2H-11-oxa-4a-aza-benzo[a]fluoren-1-yl)-methanol, (-)-(1 α -Methyl-1,3,4,5,6,11b α -hexahydro-2H-11-oxa-4a-aza-benzo[a]fluoren-1-yl)-methanol, (+)-(1 α -Methyl-1,3,4,5,6,11b α -hexahydro-2H-11-oxa-4a-aza-benzo[a]fluorene-1-carboxylic methyl ester, 1-Methoxymethyl-1 α -methyl-1,3,4,5,6,11b α -hexahydro-2H-11-oxa-4a-aza-benzo[a]fluorene, (-)-1-Methoxymethyl-1 α -methyl-1,3,4,5,6,11b α -hexahydro-2H-11-oxa-4a-aza-benzo[a]fluorene, (+)-1-Methoxymethyl-1 α -methyl-1,3,4,5,6,11b α -hexahydro-2H-11-oxa-4a-aza-benzo[a]fluorene, (1 α -Ethyl-1,3,4,5,6,11b α -hexahydro-2H-11-oxa-4a-aza-benzo[a]fluoren-1-yl)-methanol, acetic acid 1 α -Methyl-1,3,4,5,6,11b β -hexahydro-2H-11-oxa-4a-aza-benzo[a]fluoren-1-ylmethyl ester or (1 α -Methyl-1,2,3,4,6,7,12,12b α -octahydroindeno[2,1-a]quinolizin-1-yl)-methanol.

23. (Currently Amended) A compound of formula IB



wherein,

X is NR₂;

R₂ is (C₁-C₆)alkyl;

Z is -CHR₆-(CH₂)n- or a single bond;

R₁ is hydroxy, (C₁-C₆)alkyl, (C₁-C₆)alkoxy, halogen, halo(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-, CN, NO₂, NH₂, mono- or di(C₁-C₆)alkylamino or carboxyl;

R₃ is H, hydroxy, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy, (C₁-C₆)alkoxy(C₁-C₆)alkyl, hydroxy(C₁-C₆)alkoxy(C₁-C₆)alkyl, (C₃-C₇)cycloalkyl, (C₃-C₇)cycloalkyl(C₁-C₆)alkyl, aryl, aryl(C₁-C₆)alkyl, aryloxy, aryl(C₁-C₆)alkoxy, aryloxy(C₁-C₆)alkyl, aryl(C₁-C₆)alkoxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, NH₂, amino(C₁-C₆)alkyl, mono- or di(C₁-C₆)alkylamino, mono- or di(C₁-C₆)alkylamino(C₁-C₆)alkyl, (C₁-C₆)alkyl-CO-, (C₁-C₆)alkyl-CO-O-, (C₁-C₆)alkyl-CO-O-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkoxy(C₁-C₆)alkyl, carbamoyl, mono- or di(C₁-C₆)alkylamino(C₁-C₆)alkyl.

C_6)alkylcarbamoyl, carboxyl or (C_1-C_6) alkyl-S-(C_1-C_6)alkyl, wherein the said (C_3-C_7) cycloalkyl or aryl is unsubstituted or substituted with 1 or 2 substituents each independently being hydroxy, (C_1-C_6) alkyl, halogen, (C_1-C_6) alkoxy, NH_2 , CN or NO_2 , or one of R_3 or R_4 and R_6 together form a bond between the ring atoms to which they are attached;

R_4 is H, hydroxy, (C_1-C_6) alkyl, hydroxy(C_1-C_6)alkyl, (C_1-C_6) alkoxy or (C_1-C_6) alkoxy(C_1-C_6)alkyl;

R_5 is H, hydroxy, (C_1-C_6) alkyl, (C_2-C_6) alkenyl, (C_1-C_6) alkoxy, (C_1-C_6) alkoxy(C_1-C_6)alkyl, (C_3-C_7) cycloalkyl, (C_3-C_7) cycloalkyl(C_1-C_6)alkyl, aryl, aryl(C_1-C_6)alkyl, aryloxy, aryl(C_1-C_6)alkoxy, aryloxy(C_1-C_6)alkyl, aryl(C_1-C_6)alkoxy(C_1-C_6)alkyl, halo(C_1-C_6)alkyl, (C_1-C_6) alkyl-CO-O-, (C_1-C_6) alkyl-CO-O-(C_1-C_6)alkyl, (C_1-C_6) alkoxy-CO-(C_1-C_6)alkoxy(C_1-C_6)alkyl, carbamoyl, mono- or di(C_1-C_6)alkylcarbamoyl, carboxyl or (C_1-C_6) alkyl-S-(C_1-C_6)alkyl, wherein the said (C_3-C_7) cycloalkyl or aryl is unsubstituted or substituted with 1 or 2 substituents each independently being hydroxy, (C_1-C_6) alkyl, halogen, (C_1-C_6) alkoxy, NH_2 , CN or NO_2 , or R_4 and R_5 form, together with the carbon ring atoms to which they are attached, a condensed five to seven membered saturated carbocyclic ring substituted with 1 to 3 substituent(s) R_9 each independently being hydroxy, (C_1-C_6) alkyl, halogen, NH_2 , NO_2 , (C_3-C_7) cycloalkyl, hydroxy(C_1-C_6)alkyl, halo(C_1-C_6)alkyl, amino(C_1-C_6)alkyl, mono- or di(C_1-C_6)alkylamino, mono- or di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6) alkoxy, (C_1-C_6) alkoxy(C_1-C_6)alkyl, carboxyl, (C_1-C_6) alkyl-CO-, (C_1-C_6) alkyl-CO-O-, (C_1-C_6) alkoxy-CO-, (C_1-C_6) alkoxy-CO-(C_1-C_6)alkyl, carbamoyl mono- or di(C_1-C_6)alkylcarbamoyl or oxo;

R_6 is H, hydroxy, (C_1-C_6) alkyl, (C_1-C_6) alkoxy or (C_1-C_6) alkoxy(C_1-C_6)alkyl or R_6 forms a bond between the ring atom to which it is attached and the ring atom to which R_7 is attached;

R₇ is H, hydroxy, (C₁-C₆)alkyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy or (C₁-C₆)alkoxy(C₁-C₆)alkyl;

R₈ is H, hydroxy, (C₁-C₆)alkyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy or (C₁-C₆)alkoxy(C₁-C₆)alkyl or, only when n is 0, R₇ and R₈ form, together with the carbon ring atoms to which they are attached, a condensed five to seven membered saturated carbocyclic ring unsubstituted or substituted with 1 to 3 substituent(s) R₁₀ each independently being hydroxy, (C₁-C₆)alkyl, halogen, NH₂, NO₂, (C₃-C₇)cycloalkyl, hydroxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, mono- or di(C₁-C₆)alkylamino, mono- or di(C₁-C₆)alkylamino(C₁-C₆)alkyl, (C₁-C₆)alkoxy, (C₁-C₆)alkoxy(C₁-C₆)alkyl, carboxyl, (C₁-C₆)alkyl-CO-, (C₁-C₆)alkyl-CO-O-, (C₁-C₆)alkoxy-CO-, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkyl, carbamoyl, mono- or di(C₁-C₆)alkylcarbamoyl or oxo;

R₁₅ is H, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy(C₁-C₆)alkyl, hydroxy(C₁-C₆)alkoxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, mono- or di(C₁-C₆)alkylamino(C₁-C₆)alkyl, (C₁-C₆)alkyl-CO-, (C₁-C₆)alkyl-CO-O-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkyl, carbamoyl, mono- or di(C₁-C₆)alkylcarbamoyl or carboxyl;

R₁₆ is H or (C₁-C₆)alkyl;

R₇ and R₈ are attached to the carbon ring atoms, which are adjacent;

m is 0 to 2; and

n is 0 or 1,

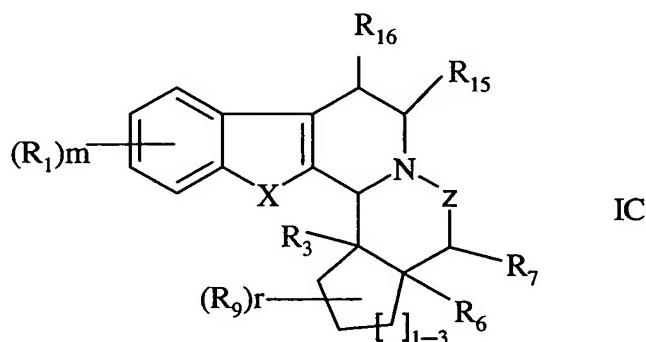
or a pharmaceutically acceptable salt or and ester thereof, with the provisos, that

- a) when m is 0 or R₁ is methoxy and R₄ is H or ethyl, then R₃ is not methoxy-CO;
- b) the compound is not 12-Methyl-1,2,3,4,6,7,12,12b-octahydro-indolo[2,3-a]quinolizine; 1-Ethyl-12-methyl-1,2,3,4,6,7,12,12b-octahydro-indolo[2,3-a]quinolizine; 2,3-Diethyl-12-methyl-1,2,3,4,6,7,12,12b-octahydro-indolo[2,3-a]quinolizine; 12-Methyl-1,2,3,4,6,7,12,12b-octahydro-indolo[2,3-a]quinolizin-1-ol; 2-(1-Ethyl-12-methyl-1,2,3,4,6,7,12,12b-octahydro-indolo[2,3-a]quinolizin-1-yl)-ethanol; 11-Methyl-2,3,5,6,11,11b-hexahydro-1H-indolizino[8,7-b]indole; (11-Methyl-2,3,5,6,11,11b-hexahydro-1H-indolizino[8,7-b]indol-1-yl)-methanol, (1,11-Diethyl-2,3,5,6,11,11b-hexahydro-1H-indolizino[8,7-b]indol-1-yl)-methanol or 3-(1-ethyl-12-methyl-1,2,3,4,6,7,12,12b-octahydro-indolo[2,3-a]quinolizin-1-yl)-propionic acid methyl ester.

24. (Original) A compound according to claim 23, wherein R₃ is hydroxy, (C₁-C₆)alkyl, hydroxy(C₁-C₆)alkyl or (C₁-C₆)alkoxy(C₁-C₆)alkyl and R₄ is H, (C₁-C₆)alkyl or hydroxy(C₁-C₆)alkyl.

25. (Currently Amended) A compound according to claim 23 any one of claims-23 or 24, wherein the compound is 1 α -Ethyl-12-methyl-1,2,3,4,6,7,12b β -octahydro-indolo[2,3-a]quinolizin-1-ol or 1 α -Ethyl-12-ethyl-1,2,3,4,6,7,12b β -octahydro-indolo[2,3-a]quinolizin-1-ol.

26. (Currently Amended) A compound of formula IC



wherein,

X is NR₂;

R₂ is H;

Z is -CHR₈-(CH₂)n- or a single bond;

n is 0;

R₁ is hydroxy, (C₁-C₆)alkyl, (C₁-C₆)alkoxy, halogen, halo(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-, CN, NO₂, NH₂, mono- or di(C₁-C₆)alkylamino or carboxyl;

R₃ is H, hydroxy, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy, (C₁-C₆)alkoxy(C₁-C₆)alkyl, hydroxy(C₁-C₆)alkoxy(C₁-C₆)alkyl, (C₃-C₇)cycloalkyl, (C₃-C₇)cycloalkyl(C₁-C₆)alkyl, aryl, aryl(C₁-C₆)alkyl, aryloxy, aryl(C₁-C₆)alkoxy, aryloxy(C₁-C₆)alkyl, aryl(C₁-C₆)alkoxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, NH₂, amino(C₁-C₆)alkyl, mono- or di(C₁-C₆)alkylamino, mono- or di(C₁-C₆)alkylamino(C₁-C₆)alkyl, (C₁-C₆)alkyl-CO-, (C₁-C₆)alkyl-CO-O-, (C₁-C₆)alkyl-CO-O-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkoxy(C₁-C₆)alkyl, carbamoyl, mono- or di(C₁-C₆)alkylcarbamoyl, carboxyl or (C₁-C₆)alkyl-S-(C₁-C₆)alkyl, wherein the said (C₃-C₇)cycloalkyl or aryl is unsubstituted or substituted with 1 or 2 substituents each independently being hydroxy, (C₁-C₆)alkyl, halogen, (C₁-C₆)alkoxy, NH₂, CN or NO₂, or R₃ and R₆ together form a bond between the ring atoms to which they are attached;

R₆ is H, hydroxy, (C₁-C₆)alkyl, (C₁-C₆)alkoxy or (C₁-C₆)alkoxy(C₁-C₆)alkyl or R₆ forms a bond between the ring atom to which it is attached and the ring atom to which R₇ is attached;

R₇ is H, hydroxy, (C₁-C₆)alkyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy or (C₁-C₆)alkoxy(C₁-C₆)alkyl;

R₈ is H, hydroxy, (C₁-C₆)alkyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy or (C₁-C₆)alkoxy(C₁-C₆)alkyl or, only when n is 0, R₇ and R₈ form, together with the carbon ring atoms to which they are attached, a condensed five to seven membered saturated carbocyclic ring unsubstituted or substituted with 1 to 3 substituent(s) R₁₀ each independently being hydroxy, (C₁-C₆)alkyl, halogen, NH₂, NO₂, (C₃-C₇)cycloalkyl, hydroxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, mono- or di(C₁-C₆)alkylamino, mono- or di(C₁-C₆)alkylamino(C₁-C₆)alkyl, (C₁-C₆)alkoxy, (C₁-C₆)alkoxy(C₁-C₆)alkyl,

carboxyl, (C₁-C₆)alkyl-CO-, (C₁-C₆)alkyl-CO-O-, (C₁-C₆)alkoxy-CO-, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkyl, carbamoyl, mono- or di(C₁-C₆)alkylcarbamoyl or oxo;

R₉ is hydroxy, (C₁-C₆)alkyl, halogen, NH₂, NO₂, (C₃-C₇)cycloalkyl, hydroxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, mono- or di(C₁-C₆)alkylamino, mono- or di(C₁-C₆)alkylamino(C₁-C₆)alkyl, (C₁-C₆)alkoxy, (C₁-C₆)alkoxy(C₁-C₆)alkyl, carboxyl, (C₁-C₆)alkyl-CO-, (C₁-C₆)alkyl-CO-O-, (C₁-C₆)alkoxy-CO-, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkyl, carbamoyl mono- or di(C₁-C₆)alkylcarbamoyl or oxo;

R₁₅ is H, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy(C₁-C₆)alkyl, hydroxy(C₁-C₆)alkoxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, mono- or di(C₁-C₆)alkylamino(C₁-C₆)alkyl, (C₁-C₆)alkyl-CO-, (C₁-C₆)alkyl-CO-O-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkyl, (C₁-C₆)alkoxy(C₁-C₆)alkyl, carbamoyl, mono- or di(C₁-C₆)alkylcarbamoyl or carboxyl;

R₁₆ is H or (C₁-C₆)alkyl;

R₇ and R₈ are attached to the carbon ring atoms, which are adjacent;

m is 0 to 2; and

r is 1 to 3;

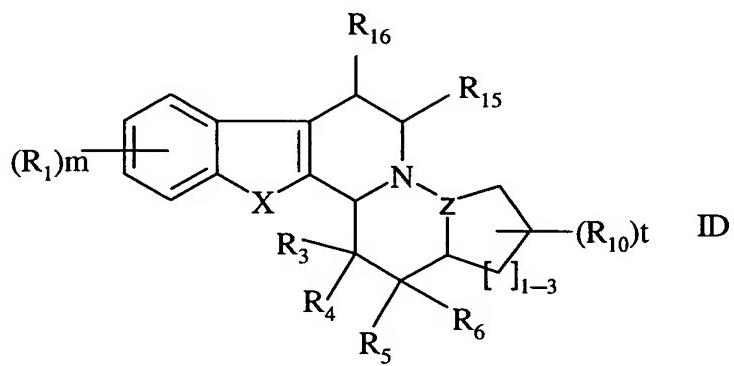
or a pharmaceutically acceptable salt or and ester thereof, with the provisos, that the compound is not 10-methyl-5,7,7a,8,9,10,11,11a,11b,12-decahydro-6H-6a,12-diaza-indeno[1,2-a]fluorene; 3-hydroxy-1,2,3,4,4a,5,6,7,8,13,13b,13c-dodecahydro-6a,13-diaza-indeno[1,2-c]phenanthrene-4-carboxylic acid methyl ester; methyl-3-ethyl-1,2,3a,4,6,7,12b,12c-octahydro-3H,12H-indolo[2,3-g]cyclopent[a]indolizine-2-carboxylate;

methyl-1,2,3a,4,6,7,12b,12c-octahydro-3H,12H-indolo[2,3-g]cyclopent[a]indolizine-2-carboxylate or 12c-ethyl-1,3a,4,6,7,12b,12c-octahydro-cyclopent[1,2]indolizino[8,7-b]indol-3(2H)-one.

27. (Original) A compound according to claim 26, wherein r is 1 and R₃ is H, hydroxy, (C₁-C₆)alkyl or hydroxy(C₁-C₆)alkyl.

28. (Currently Amended) A compound according to claim 26 any one of claims 26 or 27, wherein the compound is 3,4,4aβ,5,6,7,8,13,13bβ,13cα-decahydro-2H-6a,13-diaza-indeno[1,2-c]phenanthren-1-one, 1,2,3,4,5,6,7,8,13,13b-decahydro-6a,13-diaza-indeno[1,2-c]phenanthrene, acetic acid 1α,2,3,4,4aβ,5,6,7,8,13,13bβ,13cα-dodecahydro-6a,13-diaza-indeno[1,2-c]phenanthren-1-yl ester or acetic acid 1β,2,3,4,4aβ,5,6,7,8,13,13bβ,13cα-dodecahydro-6a,13-diaza-indeno[1,2-c]phenanthren-1-yl ester.

29. (Currently Amended) A compound of formula ID



wherein,

X is NR₂;

R₂ is H;

Z is -CH-(CH₂)n-;

n is 0;

R₁ is hydroxy, (C₁-C₆)alkyl, (C₁-C₆)alkoxy, halogen, halo(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-, CN, NO₂, NH₂, mono- or di(C₁-C₆)alkylamino or carboxyl;

R₃ is H, hydroxy, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy, (C₁-C₆)alkoxy(C₁-C₆)alkyl, hydroxy(C₁-C₆)alkoxy(C₁-C₆)alkyl, (C₃-C₇)cycloalkyl, (C₃-C₇)cycloalkyl(C₁-C₆)alkyl, aryl, aryl(C₁-C₆)alkyl, aryloxy, aryl(C₁-C₆)alkoxy, aryloxy(C₁-C₆)alkyl, aryl(C₁-C₆)alkoxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, NH₂, amino(C₁-C₆)alkyl, mono- or di(C₁-C₆)alkylamino, mono- or di(C₁-C₆)alkylamino(C₁-C₆)alkyl, (C₁-C₆)alkyl-CO-, (C₁-C₆)alkyl-CO-O-, (C₁-C₆)alkyl-CO-O-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkoxy(C₁-C₆)alkyl, carbamoyl, mono- or di(C₁-C₆)alkylcarbamoyl, carboxyl or (C₁-C₆)alkyl-S-(C₁-C₆)alkyl, wherein the said (C₃-C₇)cycloalkyl or aryl is unsubstituted or substituted with 1 or 2 substituents each independently being hydroxy, (C₁-C₆)alkyl, halogen, (C₁-C₆)alkoxy, NH₂, CN or NO₂, or one of R₃ or R₄ and R₆ together form a bond between the ring atoms to which they are attached;

R₄ is H, hydroxy, (C₁-C₆)alkyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy or (C₁-C₆)alkoxy(C₁-C₆)alkyl;

R₅ is H, hydroxy, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₁-C₆)alkoxy, (C₁-C₆)alkoxy(C₁-C₆)alkyl, (C₃-C₇)cycloalkyl, (C₃-C₇)cycloalkyl(C₁-C₆)alkyl, aryl, aryl(C₁-C₆)alkyl, aryloxy,

aryl(C₁-C₆)alkoxy, aryloxy(C₁-C₆)alkyl, aryl(C₁-C₆)alkoxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, (C₁-C₆)alkyl-CO-O-, (C₁-C₆)alkyl-CO-O-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkoxy(C₁-C₆)alkyl, carbamoyl, mono- or di(C₁-C₆)alkylcarbamoyl, carboxyl or (C₁-C₆)alkyl-S-(C₁-C₆)alkyl, wherein the said (C₃-C₇)cycloalkyl or aryl is unsubstituted or substituted with 1 or 2 substituents each independently being hydroxy, (C₁-C₆)alkyl, halogen, (C₁-C₆)alkoxy, NH₂, CN or NO₂, or R₄ and R₅ form, together with the carbon ring atoms to which they are attached, a condensed five to seven membered saturated carbocyclic ring substituted with 1 to 3 substituent(s) R₉ each independently being hydroxy, (C₁-C₆)alkyl, halogen, NH₂, NO₂, (C₃-C₇)cycloalkyl, hydroxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, mono- or di(C₁-C₆)alkylamino, mono- or di(C₁-C₆)alkylamino(C₁-C₆)alkyl, (C₁-C₆)alkoxy, (C₁-C₆)alkoxy(C₁-C₆)alkyl, carboxyl, (C₁-C₆)alkyl-CO-, (C₁-C₆)alkyl-CO-O-, (C₁-C₆)alkoxy-CO-, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkyl, carbamoyl mono- or di(C₁-C₆)alkylcarbamoyl or oxo;

R₆ is H, hydroxy, (C₁-C₆)alkyl, (C₁-C₆)alkoxy or (C₁-C₆)alkoxy(C₁-C₆)alkyl or R₆ forms a bond between the ring atom to which it is attached and the ring atom to which R₇ is attached;

R₁₀ is hydroxy, (C₁-C₆)alkyl, halogen, NH₂, NO₂, (C₃-C₇)cycloalkyl, hydroxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, mono- or di(C₁-C₆)alkylamino, mono- or di(C₁-C₆)alkylamino(C₁-C₆)alkyl, (C₁-C₆)alkoxy, (C₁-C₆)alkoxy(C₁-C₆)alkyl, carboxyl, (C₁-C₆)alkyl-CO-, (C₁-C₆)alkyl-CO-O-, (C₁-C₆)alkoxy-CO-, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkyl, carbamoyl, mono- or di(C₁-C₆)alkylcarbamoyl or oxo;

R₁₅ is H, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy(C₁-C₆)alkyl, hydroxy(C₁-C₆)alkoxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, mono- or di(C₁-C₆)alkylamino(C₁-C₆)alkyl, (C₁-C₆)alkyl-CO-, (C₁-C₆)alkyl-CO-O-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-

CO-, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkoxy(C₁-C₆)alkyl, carbamoyl, mono- or di(C₁-C₆)alkylcarbamoyl or carboxyl;

R₁₆ is H or (C₁-C₆)alkyl;

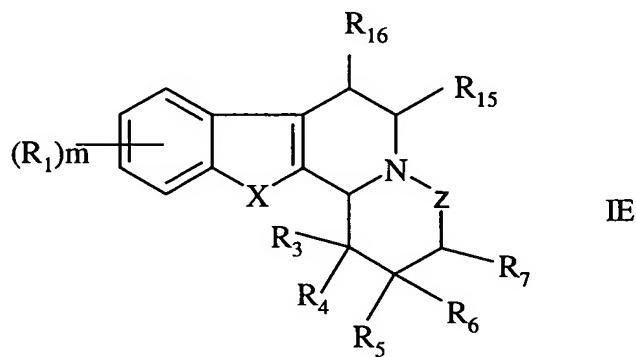
R_7 and R_8 are attached to the carbon ring atoms, which are adjacent;

m is 0 to 2; and

t is 0 to 3:

or a pharmaceutically acceptable salt or and ester thereof, with the provisos, that the compound is not 1,2,3,4,4a,5,6,11,11b,12,13,13a-dodecahydro-4b,11-diaza-indeno[2,1-a]phenanthrene; 1,2,3,4,4a,5,6,11,11b,12-decahydro-4b,11-diaza-indeno[2,1-a]phenanthrene; 9-methoxy-1,2,3,4,4a,5,6,11,11b,12-decahydro-4b,11-diaza-indeno[2,1-a]phenanthrene or 1-hydroxy-1,2,3,4,4a,5,6,11,11b,12,13,13a-dodecahydro-4b,11-diaza-indeno[2,1-a]phenanthrene-2-carboxylic acid methyl ester.

30. (Currently Amended) A compound of formula IE



wherein,

X is NR₂;

R₂ is H;

Z is -CHR₈-(CH₂)n- or a single bond;

R₁ is hydroxy, (C₁-C₆)alkyl, (C₁-C₆)alkoxy, halogen, halo(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-, CN, NO₂, NH₂, mono- or di(C₁-C₆)alkylamino or carboxyl;

R₃ is H, hydroxy, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy, (C₁-C₆)alkoxy(C₁-C₆)alkyl, hydroxy(C₁-C₆)alkoxy(C₁-C₆)alkyl, (C₃-C₇)cycloalkyl, (C₃-C₇)cycloalkyl(C₁-C₆)alkyl, aryl, aryl(C₁-C₆)alkyl, aryloxy, aryl(C₁-C₆)alkoxy, aryloxy(C₁-C₆)alkyl, aryl(C₁-C₆)alkoxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, NH₂, amino(C₁-C₆)alkyl, mono- or di(C₁-C₆)alkylamino, mono- or di(C₁-C₆)alkylamino(C₁-C₆)alkyl, (C₁-C₆)alkyl-CO-, (C₁-C₆)alkyl-CO-O-, (C₁-C₆)alkyl-CO-O-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkoxy(C₁-C₆)alkyl, carbamoyl, mono- or di(C₁-C₆)alkylcarbamoyl, carboxyl or (C₁-C₆)alkyl-S-(C₁-C₆)alkyl, wherein the said (C₃-C₇)cycloalkyl or aryl is unsubstituted or substituted with 1 or 2 substituents each independently being hydroxy, (C₁-C₆)alkyl, halogen, (C₁-C₆)alkoxy, NH₂, CN or NO₂, or one of R₃ or R₄ and R₆ together form a bond between the ring atoms to which they are attached;

R₄ is H, hydroxy, (C₁-C₆)alkyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy or (C₁-C₆)alkoxy(C₁-C₆)alkyl;

R₅ is H, hydroxy, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₁-C₆)alkoxy, (C₁-C₆)alkoxy(C₁-C₆)alkyl, (C₃-C₇)cycloalkyl, (C₃-C₇)cycloalkyl(C₁-C₆)alkyl, aryl, aryl(C₁-C₆)alkyl, aryloxy, aryl(C₁-C₆)alkoxy, aryloxy(C₁-C₆)alkyl, aryl(C₁-C₆)alkoxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, (C₁-C₆)alkyl-CO-O-, (C₁-C₆)alkyl-CO-O-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkoxy(C₁-C₆)alkyl

C_6)alkyl, carbamoyl, mono- or di(C_1-C_6)alkylcarbamoyl, carboxyl or (C_1-C_6)alkyl-S-(C_1-C_6)alkyl, wherein the said (C_3-C_7)cycloalkyl or aryl is unsubstituted or substituted with 1 or 2 substituents each independently being hydroxy, (C_1-C_6)alkyl, halogen, (C_1-C_6)alkoxy, NH_2 , CN or NO_2 , or R_4 and R_5 form, together with the carbon ring atoms to which they are attached, a condensed five to seven membered saturated carbocyclic ring substituted with 1 to 3 substituent(s) R_9 each independently being hydroxy, (C_1-C_6)alkyl, halogen, NH_2 , NO_2 , (C_3-C_7)cycloalkyl, hydroxy(C_1-C_6)alkyl, halo(C_1-C_6)alkyl, amino(C_1-C_6)alkyl, mono- or di(C_1-C_6)alkylamino, mono- or di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkoxy, (C_1-C_6)alkoxy(C_1-C_6)alkyl, carboxyl, (C_1-C_6)alkyl-CO-, (C_1-C_6)alkyl-CO-O-, (C_1-C_6)alkoxy-CO-, (C_1-C_6)alkoxy-CO-(C_1-C_6)alkyl, carbamoyl mono- or di(C_1-C_6)alkylcarbamoyl or oxo;

R_6 is H, hydroxy, (C_1-C_6)alkyl, (C_1-C_6)alkoxy or (C_1-C_6)alkoxy(C_1-C_6)alkyl or R_6 forms a bond between the ring atom to which it is attached and the ring atom to which R_7 is attached;

R_7 is H, hydroxy, (C_1-C_6)alkyl, hydroxy(C_1-C_6)alkyl, (C_1-C_6)alkoxy or (C_1-C_6)alkoxy(C_1-C_6)alkyl;

R_8 is H, hydroxy, (C_1-C_6)alkyl, hydroxy(C_1-C_6)alkyl, (C_1-C_6)alkoxy or (C_1-C_6)alkoxy(C_1-C_6)alkyl or, only when n is 0, R_7 and R_8 form, together with the carbon ring atoms to which they are attached, a condensed five to seven membered saturated carbocyclic ring unsubstituted or substituted with 1 to 3 substituent(s) R_{10} each independently being hydroxy, (C_1-C_6)alkyl, halogen, NH_2 , NO_2 , (C_3-C_7)cycloalkyl, hydroxy(C_1-C_6)alkyl, halo(C_1-C_6)alkyl, amino(C_1-C_6)alkyl, mono- or di(C_1-C_6)alkylamino, mono- or di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkoxy, (C_1-C_6)alkoxy(C_1-C_6)alkyl,

carboxyl, (C₁-C₆)alkyl-CO-, (C₁-C₆)alkyl-CO-O-, (C₁-C₆)alkoxy-CO-, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkyl, carbamoyl, mono- or di(C₁-C₆)alkylcarbamoyl or oxo;

R₁₅ is H, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy(C₁-C₆)alkyl, hydroxy(C₁-C₆)alkoxy(C₁-C₆)alkyl, halo(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, mono- or di(C₁-C₆)alkylamino(C₁-C₆)alkyl, (C₁-C₆)alkyl-CO-, (C₁-C₆)alkyl-CO-O-(C₁-C₆)alkyl, (C₁-C₆)alkoxy-CO-, (C₁-C₆)alkoxy-CO-(C₁-C₆)alkyl, (C₁-C₆)alkoxy(C₁-C₆)alkyl, carbamoyl, mono- or di(C₁-C₆)alkylcarbamoyl or carboxyl;

R₁₆ is H or (C₁-C₆)alkyl;

R₇ and R₈ are attached to the carbon ring atoms, which are adjacent;

m is 0 to 2; and

n is 1,

or a pharmaceutically acceptable salt or and ester thereof, with the proviso, that the compound is not 2,3,4,5,7,8,13,13b-octahydro-2,3-diethyl-1H-azepino[1',2':1,2]pyrido[3,4-b]indole; acetic acid 2,3,4,5,7,8,13,13b-octahydro-1H-azepino[1',2':1,2]pyrido[3,4-b]indol-2-ylmethyl ester; 2,3,4,5,7,8,13,13b-octahydro-1H-azepino[1',2':1,2]pyrido[3,4-b]indole-2-[(phenylmethoxy)methyl] or 2,3,4,5,7,8,13,13b-octahydro-1H-azepino[1',2':1,2]pyrido[3,4-b]indole-4-ethyl-2-[(phenylmethoxy)methyl].

31. (Original) A compound according to claim 30, wherein the compound is 2,3,4,5,7,8,13,13b-octahydro-1H-azepino[1',2':1,2]pyrido[3,4-b]indole.

32. (Original) A compound which is 2 β -Methoxy-1,2,3,4,6,7,12,12b α -octahydro-indolo[2,3-a]quinolizine, 2 α -methoxy-1,2,3,4,6,7,12,12b α -octahydro-indolo[2,3-a]quinolizine,

1 α -Ethyl-2 α -methyl-1,2,3,4,6,7,12,12b β -octahydro-indolo[2,3-*a*]quinolizin-1-ol, 1 α -Isopropyl-1,2,3,4,6,7,12,12b β -octahydro-indolo[2,3-*a*]quinolizin-1-ol, (-)-1 α -isopropyl-1,2,3,4,6,7,12,12b β -octahydroindolo[2,3-*a*]quinolizin-1-ol, (+)-1 α -isopropyl-1,2,3,4,6,7,12,12b β -octahydro-indolo[2,3-*a*]quinolizin-1-ol, 1 β -Isopropyl-1,2,3,4,6,7,12,12b β -octahydro-indolo[2,3-*a*]quinolizine, (1 α -Isopropyl-1,2,3,4,6,7,12,12b β -octahydro-indolo[2,3-*a*]quinolizin-1-yl)-methanol, (1 α -*n*-Propyl-1,2,3,4,6,7,12,12b β -octahydro-indolo[2,3-*a*]quinolizin-1-yl)-methanol, 2-(1 α ,2,3,4,6,7,12,12b β -Octahydro-indolo[2,3-*a*]quinolizin-1-yl)-butan-2-ol, 1-(1,2 α ,3,4,6,7,12,12b α -Octahydro-indolo[2,3-*a*]quinolizin-2-yl)-propan-1-ol, 2-(1 α ,2,3,4,6,7,12,12b β -Octahydro-indolo[2,3-*a*]quinolizin-1-yl)-propan-2-ol, 1-*s*-Butyl-1,2,3,4,6,7,12,12b β -octahydroindolo[2,3-*a*]quinolizin-1-ol, 1-Cyclohexyl-1,2,3,4,6,7,12,12b β -octahydroindolo[2,3-*a*]quinolizin-1-ol, 9-Fluoro-1 α -isopropyl-1,2,3,4,6,7,12,12b β -octahydro-indolo[2,3-*a*]quinolizin-1-ol, (1 α -Methyl-1,2,3,4,6,7,12,12b β -octahydroindolo[2,3-*a*]quinolizin-1-yl)-methanol, (-)-(1 α -Methyl-1,2,3,4,6,7,12,12b β -octahydroindolo[2,3-*a*]quinolizin-1-yl)-methanol, (+)-(1 α -Methyl-1,2,3,4,6,7,12,12b β -octahydroindolo[2,3-*a*]quinolizin-1-yl)-methanol, (1 α -Ethyl-1,4,6,7,12,12b β -hexahydroindolo[2,3-*a*]quinolizin-1-yl)-methanol, 3 β ,4 α -Dimethyl-1,2,3,4,6,7,12,12b β -octahydroindolo[2,3-*a*]quinolizine, (1,2 α ,3,4,6,7,12,12b α -Octahydroindolo[2,3-*a*]quinolizin-2-yl)-propan-2-ol, (1,2 α ,3,4,6,7,12,12b β -Octahydroindolo[2,3-*a*]quinolizin-2-yl)-propan-2-ol, (2 α -Ethyl-1,2,3,4,6,7,12,12b α -octahydroindolo[2,3-*a*]quinolizin-2-yl)-methanol, (2 α -Ethyl-1,2,3,4,6,7,12,12b β -octahydroindolo[2,3-*a*]quinolizin-2-yl)-methanol, (1 α -Ethyl-1,2,3,4,6,7,12,12b β -octahydroindolo[2,3-*a*]quinolizin-1-ylmethoxy)-acetic acid ethyl ester, 1-(2 α -ethyl-1,2,3,4,6,7,12,12b α -octahydro-indolo[2,3-*a*]quinolizin-2-yl)-ethanone, 1-(2 α -ethyl-1,2,3,4,6,7,12,12b α -octahydro-indolo[2,3-*a*]quinolizin-2-yl)-ethanol, 2-(2 α -ethyl-

1,2,3,4,6,7,12,12b α -octahydro-indolo[2,3-a]quinolizin-2-yl)-propan-2-ol, 2-(3-ethyl-1,2 α ,3 α ,4,6,7,12,12b α -octahydro-indolo[2,3-a]quinolizin-2-yl)-propan-2-ol, (3-ethyl-2-methyl-1 α ,2 β ,3 β ,4,6,7,12,12b β -octahydro-indolo[2,3-a]quinolizin-1-yl)-methanol, 3-ethyl-1,2-dimethyl-1 α ,2 β ,3 β ,4,6,7,12,12b β -octahydro-indolo[2,3-a]quinolizine, 1,2-dimethyl-1,2,3,4,6,7,12,12b β -octahydro-indolo[2,3-a]quinolizin-1 β -ol, (1-ethyl-2-methyl-1 β ,2 β ,3 β ,4,6,7,12,12b α -octahydro-indolo[2,3-a]quinolizin-3-yl)-methanol, 1- β -Hydroxymethyl-1-methyl-1,2,3,4,6,7,12,12b β -octahydro-indolo[2,3-a]quinolizine-6 β -carboxylic acid methyl ester, 5,6,7,7a β ,8,9,10,11,11a β ,11b α -Decahydro-12-oxa-6a-aza-indeno[1,2-a]fluorene, 2,3,4,4a β ,5,6,7,8,13b β ,13c β -Decahydro-1H-13-oxa-6a-aza-indeno[1,2-c]phenanthrene, 2,3,4,4a β ,5,6,7,8,13b α ,13c β -Decahydro-1H-13-oxa-6a-aza-indeno[1,2-c]phenanthrene, 2,3,4,4a β ,5,6,7,8,13,13b β -decahydro-1H-6a,13-diaza-indeno[1,2-c]phenanthren-13c β -ol, (-)-2,3,4,4a β ,5,6,7,8,13,13b β -decahydro-1H-6a,13-diaza-indeno[1,2-c]phenanthren-13c β -ol, (+)-2,3,4,4a β ,5,6,7,8,13,13b β -decahydro-1H-6a,13-diaza-indeno[1,2-c]phenanthren-13c β -ol, (2,3,4,4a β ,5,6,7,8,13,13b β -Decahydro-1H-6a,13-diaza-indeno[1,2-c]phenanthrenyl)-13c β -methanol or 5,6,7,7a,11,11b,12-Decahydro-6a,12-diaza-indeno[1,2-a]fluoren-11a-ol.

33. (Currently Amended) A pharmaceutical composition comprising at least one compound according to claim 15 any one of claims 15 to 32 and a pharmaceutically acceptable diluent, carrier and/or excipient.

34. (Canceled)

35. (Canceled)

36. (New) A pharmaceutical composition comprising at least one compound according to claim 23 and a pharmaceutically acceptable diluent, carrier and/or excipient.

37. (New) A pharmaceutical composition comprising at least one compound according to claim 26 and a pharmaceutically acceptable diluent, carrier and/or excipient.

38. (New) A pharmaceutical composition comprising at least one compound according to claim 29 and a pharmaceutically acceptable diluent, carrier and/or excipient.

39. (New) A pharmaceutical composition comprising at least one compound according to claim 30 and a pharmaceutically acceptable diluent, carrier and/or excipient.